

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-12. (Cancelled)

13. (Currently Amended) A method of cleaning a substrate of a liquid crystal display panel comprising the following sequential steps:

first step, moving the substrate linearly between first and second cylindrical brushes, wherein the substrate includes ~~first to fourth~~ four side surfaces and upper and lower surfaces;

second step, brushing a ~~[[the]]~~ first and a second side surface ~~surfaces~~ opposite to each other among the four ~~first to fourth~~ side surfaces of the substrate with the first and second cylindrical brushes that rotate based on an axis of rotation, respectively, in order to primarily clean the first and second side surfaces wherein the first and second cylindrical brushes are rotated to brush the first and second side surfaces, respectively, to a ~~lower direction or to an upper~~ direction perpendicular to a ~~progress~~ the movement direction of the substrate;

third step, moving the substrate linearly between upper and lower brushes;

fourth step, cleaning the upper and lower surfaces of the substrate with the upper and lower brushes, respectively, wherein rotation directions of the upper and lower brushes having the same direction as a ~~progress~~ direction of movement of the substrate at all contact points between the upper and lower brushes and the substrate;

fifth step, moving the substrate linearly between first and second jetting devices; and

sixth step, finally jetting deionized water that carries ultrasonic waves with the first and second jetting devices onto the first and second side surfaces of the substrate in order to clean the first and second side surfaces cleaned with the first and second cylindrical brushes after brushing the first and second side surfaces opposite to each other with the first and second cylindrical brushes and after cleaning the upper and lower surfaces of the substrate with the upper and lower brushes.

14-15. (Cancelled)

16. (Currently Amended) The method of claim 13, wherein cleaning the upper and lower surfaces of the substrate comprises:

rotating to clean the upper and lower surfaces of the substrate, respectively, along the same direction as ~~a progress~~ the movement direction of the substrate.

17. (Cancelled)

18. (Previously Presented) The method of claim 16, wherein the upper and lower brushes are arranged at the upper and lower surfaces of the substrate, respectively.

19-33. (Cancelled)

34. (Previously Presented) The method of claim 13, wherein the first and second side surfaces are substantially parallel.

35. (Currently Amended) The method of claim 13, wherein an axis of rotation of each of the first and second cylindrical brushes is substantially parallel to ~~a progress~~ the movement direction of the substrate.

36-44. (Cancelled)

45. (Currently Amended) A method of cleaning a substrate including four ~~first to fourth~~ side surfaces and upper and lower surfaces, the method comprising:

moving the substrate linearly between first and second side brushes to contact the first and second side surfaces opposite to each other among the ~~first to fourth~~ four side surfaces of the substrate such that the first and second side surfaces are primarily cleaned;

rotating the first and second side brushes based on an axis of rotation to brush the first and second side surfaces, respectively, to a ~~lower direction or to an upper~~ direction perpendicular to a ~~progress~~ the movement direction of the substrate, thereby firstly cleaning the first and second side surfaces;

continuously moving the substrate linearly between upper and lower brushes to contact the upper and lower surfaces of the substrate;

rotating the upper and lower brushes to clean the upper and lower surfaces, rotation directions of the upper and lower brushes having the same direction as a ~~progress~~ the movement direction of the substrate at all contact points between the upper and lower brushes and the substrate;

continuously moving the substrate linearly between first and second jetting devices; and

jetting deionized water that carries ultrasonic waves onto the first and second side surfaces of the substrate to secondly clean the first and second side surfaces of the substrate after brushing the first and second side surfaces opposite to each other with the first and second cylindrical brushes and after cleaning the upper and lower surfaces of the substrate with the upper and lower brushes such that the first and second side surfaces cleaned with the first and second cylindrical brushes are secondly cleaned.